

- In addition to cellular services, there are over 40 companies provide paging services in Connecticut.
 - SMR services also are currently available in Connecticut and tower sites have been constructed by Nextel for its ESMR service that is expected to be available in Connecticut early next year.
- (ii) The number of customers of each CMRS provider in the state; trends in each provider's customer base during the most recent annual period or other data covering another reasonable period if annual data is unavailable; and annual revenues and rates of return for each CMRS provider**
- The number of reseller customers of the wholesale cellular providers have increased from eight to fifteen since 1985.
 - End user subscriber growth in Connecticut over the past five years has averaged in the double digits.
 - In the last 26 months new end user subscriber growth has increased 100 percent.
 - Subscriber growth has been shared among the resellers and not been limited to the retail affiliates of the wholesale providers.
 - The rates of return of each of the wholesale cellular providers, when calculated from actual historic audited financial information (and based on the carriers' reasonable projections for future years) are reasonable.
- (iii) Rate information for each CMRS provider, including trends in each provider's rates during the most recent annual period or other data covering another reasonable period if annual data is unavailable**
- The rates of the wholesale cellular providers have continually decreased in Connecticut in line with cellular price decreases nationwide. In 1993 and in 1994 the price decreases have continued.
 - The retail cellular market in Connecticut has been characterized by the introduction of new lower-priced service plans and relative stability in basic plan rates, while the networks have continued to provide additional value for the same basic plan price.

(iv) An assessment of the extent to which services offered by the CMRS providers the state proposes to regulate are substitutable for services offered by other carriers in the state

- Paging services currently provide a level of substitution for cellular services in Connecticut.
- Connecticut also is expected to be one of the first markets for Nextel's ESMR service that will be interoperable with other services including cellular and landline services. Nextel currently has constructed tower sites in Connecticut and is expected to begin offering service in Connecticut in early 1995.
- Broadband PCS also will provide a substitutable service for cellular service.
- Connecticut is one of the primary markets for PCS due to its location between the New York and Boston metropolitan areas and its *per capita* income which is the highest in the nation.

(v) Opportunities for new providers to enter into the provision of competing services, and an analysis of any barriers to such entry

- New providers of CMRS will not face any barriers to entry into the Connecticut market and are likely to aggressively offer CMRS services in the state due to the attractive demographic characteristics of the market, including Connecticut's ranking as the state with the highest per capita income.
- The Department only regulates wholesale cellular service providers licensed by the FCC.
- Other mobile services, including ESMR and PCS and retail cellular are not and will not be regulated by the Department.
- The Budget Act preempts all state entry regulation of CMRS providers.

(vi) Specific allegations of fact regarding anti-competitive or discriminatory practices or behavior by CMRS providers in the state

- The wholesale cellular carriers have not engaged in anti-competitive or discriminatory practices.
- Structural separation between the wholesale and retail cellular carriers is not required by the FCC or State law. Springwichee has adopted structural separation safeguards.

- The few allegations of anti-competitive or discriminatory conduct emanate primarily from a reseller in financial distress whose credibility and veracity are in serious question.
- (vii) **Evidence, information, and analysis demonstrating with particularity instances of systematic unjust and unreasonable rates, or rates that are unjust or unreasonably discriminatory, imposed upon CMRS subscribers. Such evidence should include an examination of the relationship between rates and costs. Additionally, evidence of a pattern of such rates, that demonstrates the inability of the CMRS marketplace in the state to produce reasonable rates through competitive forces will be considered especially probative**
- The record does not contain any evidence of instances of systematic unjust and unreasonable rates or rates that are unjust or unreasonably discriminatory.
 - The evidence demonstrates a continuing decline in wholesale cellular rates while network investment by the wholesale carriers continues to increase.
 - Forecasts predict future price decreases as the product of new competition, new spectrum-based services and the conversion by the wholesale carriers to digital technology.
 - The reasonable rates of return by both carriers demonstrate that rates are reasonable and that the competition between the carriers today and the impending arrival of new competition will continue to produce reasonable rates.
- (viii) **Information regarding customer satisfaction or dissatisfaction with services offered by CMRS providers, including statistics and other information about complaints filed with the state regulatory commission.**
- The continual double digital growth of cellular penetration demonstrates the general level of customer satisfaction with cellular services.
 - The wholesale carriers are continuing to make network investments such as increasing cell density to ensure that resellers are able to retain and grow their subscribership.
 - The record does not contain any evidence of statistics or complaints from cellular end users in Connecticut. The only isolated complaints are from resellers who seek to use the regulatory process to ensure they earn a profit in a controlled regulatory market rather than face their uncertain future in a truly competitive market.

FOR ALL OF THESE REASONS, Springwich respectfully requests that the FCC not permit rate regulation of the wholesale cellular carriers to continue.

Respectfully submitted,

SPRINGWICH CELLULAR LIMITED
PARTNERSHIP

A handwritten signature in black ink, appearing to read "Jean L. Kiddoo", written over a horizontal line.

Jean L. Kiddoo
Shelley L. Spencer

SWIDLER & BERLIN, CHTD.
3000 K Street, N.W.
Suite 300
Washington, D.C. 20007
(202) 424-7834

Peter J. Tyrrell, Esq.
Springwich Cellular Limited Partnership
227 Church Street
Room 1021
New Haven, CT 06510

ITS COUNSEL

Dated: September 19, 1994

LIST OF EXHIBITS

- | | |
|-------------------|---------------------------------------------------------------------------------|
| Exhibit 1 | Charles River Associates Study |
| Exhibit 2 | Map of Nextel Connecticut Tower Sites |
| Exhibit 3 | CTIA Competition Study |
| Exhibit 4 | Chart of Changes in Subscriber Volume in the Connecticut Cellular Market |
| Exhibit 5 | Chart of Springwich Cell Site Growth |
| Exhibit 6 | Affidavit of Mark W. Bluemling |
| Exhibit 7 | List of Springwich Tariff Rate Reductions |
| Exhibit 8 | List of Connecticut Paging Licensees |
| Exhibit 9 | List of Connecticut Specialized Mobile Radio ("SMR") Licensees |
| Exhibit 10 | Hausman Cellular Pricing Affidavit |
| Exhibit 11 | Affidavit of Arthur H. Paquette |

THE CELLULAR SERVICE INDUSTRY: PERFORMANCE AND COMPETITION

Prepared for:

THE CELLULAR TELECOMMUNICATIONS INDUSTRY ASSOCIATION

CHARLES RIVER ASSOCIATES

Stanley M. Besen
Robert J. Larner
Jane Murdoch

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The Performance of the Cellular Industry

From its beginning, the business of supplying cellular telephone communications has been characterized by rapidly increasing volume, declining prices, expanded service offerings, and significant technological change.

The volume of cellular services can be measured either by the number of subscribers or by the minutes of airtime used. The number of cellular telephone subscribers had grown from only 91,600 in January 1985 to an estimated 8.8 million by June 1992. Growth has continued to be rapid, with the number of cellular subscribers increasing by 46 percent during the 12 months ending June 1991 and by 39 percent in the 12 months ending June 1992.¹ The number of cellular subscribers is projected to be 19 million by 1995 and 38 million by 2001.² Growth in cellular airtime also has been substantial, although it has been slower than the growth in the number of subscribers because later subscribers have tended to use the service less intensively than earlier adopters. This change reflects the increased importance of residential users of cellular telephones relative to business users.

¹Cellular Telecommunications Industry Association, Industry Data Survey, June 30, 1992, p. 1. The growth in volume that has occurred has far exceeded expectations. When commercial cellular service began in the United States in 1983, the potential demand in the year 2000 was thought to be between one and two million subscribers; see Coopers & Lybrand, Technological Change and the Cellular Telecommunications Industry (November 1991), p. 15.

²Linden Corporation, Cellular Network Technology, End User Requirements, and Competition to the Year 2001, 1991, p. 244.

Contributing to this increasing volume has been a steady decline in the costs of owning and using cellular telephones. For example, the nominal price for 250 minutes of prime airtime usage per month across the ten largest cellular service areas had, in 1989, declined by 19 percent from the inception of commercial cellular service in 1983. Even with a slight increase in carrier charges estimated for 1991 and 1992, the unweighted average of the lowest published rate for access and 250 minutes of usage during prime time in these ten service areas was only 85 percent of its 1983 level. When adjusted for inflation, the average of these rates in the ten largest cellular service areas in 1991 was only 62 percent of its 1983 level.³

The monthly cost of a mobile cellular telephone has declined by even more than carrier charges, from \$79 in 1983 to \$7 in 1991. During the same time, the quality of mobile telephone service was also enhanced by improvements in functions and features. When adjusted for inflation, the total cost of owning and using a cellular telephone in 1991 was only 44 percent of its cost in 1983.⁴

Cellular subscribers have benefitted not only from falling prices but also from the continually expanding variety of services offered by cellular operators. Only five years ago, there were no

³Data are from Herschel Shosteck Associates, Ltd., Cellular Market Forecasts. Data Flash, September 1992.

⁴Data are from Shosteck, op. cit., and measure the "drive away" price of a single mobile telephone, including antenna, installation, and first-year maintenance.

value-added cellular services. Today, cellular providers offer a number of information services as well as features such as voice mail, call forwarding, and call waiting. There have been major advances in data transmission as well, including portable facsimile and wireless transmission for laptop computers. New services continue to be developed. For example, cellular telephones now are being used to verify credit cards and to transmit information to and from remote locations in computerized monitoring and reporting systems.

Technological advances in recent years also have enabled cellular systems to expand their capacity. Several capacity-increasing innovations have occurred in the conventional or analog cellular technology, such as adjusted power output, antenna tilting, dynamic channel assignment, and cell repeaters and umbrella (underlay/overlay).⁵

Notwithstanding the continuing improvements in analog-based cellular systems, even more dramatic advances are expected from the further development and application of digital technology. Virtually all cellular switches made today are digital, and the shift to this technology is expected to occur in base station radios and subscriber telephones during the 1990s.⁶

⁵H. Shostack, "The question marks over PCNs," Mobile Europe, January 1991, no pagination.

⁶Coopers & Lybrand, op. cit., pp. 59-60. During a transition period, cellular phones will be dual mode, adaptable to both digital and analog systems.

The conversion to digital technology, despite the substantial investment required, promises to yield even greater increases in system capacity and lower average costs for cellular operators. For example, the capacity of base stations will at least triple initially. In addition, digital technology will permit new services to be provided.⁷

Competition in the Supply of Cellular Services

This performance of the cellular service industry is the kind that economists associate with a young industry driven by market forces and developing in a competitive context,⁸ and it has occurred without the industry's having a competitive structure, as economists define that term.⁹ The FCC has determined that the cellular service business should be a structural duopoly: only two facilities-based suppliers, one wireline carrier and one nonwireline carrier, are permitted to operate in a service area, with additional facilities-based entry barred. Economists have recognized, however, that the behavior of firms and the performance of an industry can approximate the competitive outcome even if the

⁷Ibid., p. 60.

⁸While this record of performance is consistent with a competitive industry, it does not prove that the industry is necessarily competitive, since even a monopolist facing conditions of increasing demand and reduced costs is likely to earn greater profits by lowering price, expanding output, and making innovations in products and methods of production.

⁹Economists call a market structure competitive when entry is easy, firms are numerous, and no firm has a large market share. As we point out in the text, the performance of a market can be competitive even if its structure is not.

industry does not consist of a large number of firms, none of which serves a large share of the market.

Economists consider the number and size distribution of firms in a market to be important initial indicators of the likelihood of noncompetitive behavior.¹⁰ Collusive arrangements, whether explicit or tacit, are more likely when there are only a few firms, simply because coordination is easier. Similarly, the costs of monitoring the behavior of others and enforcing any collusive arrangement by punishing "cheaters" are lower when there are few industry participants.¹¹ The size distribution of firms also affects the ease of coordination. A small number of very large firms may serve as coordinators in an industry that also includes many small firms.

However, economists also recognize that the competitive outcome, where prices are driven to marginal costs, may obtain even in industries with as few as two firms.¹² Theoretical models of the strategic interactions between duopolists predict a broad range of outcomes, from monopolistic to perfectly competitive.¹³ In

¹⁰M. Spence, "Tacit Co-ordination and Imperfect Information," Canadian Journal of Economics XI (1978), pp. 497 and 499.

¹¹J.S. Bain, "Relation of Profit Rate to Industry Concentration," Quarterly Journal of Economics LXV (1951), pp. 205-206.

¹²The best-known model demonstrating this result is found in J. Bertrand, "Théorie Mathématique de la Richesse Sociale," Journal des Savants, 1883, pp. 499-508.

¹³A large body of economic literature, predicting a range of competitive outcomes, is reviewed in J. Tirole, The Theory of Industrial Organization (Cambridge, MA: The MIT Press, 1988), pp. 225-308.

these models, firms choose whether to cooperate and at which price. The outcome depends on the reaction that each firm expects from its competitor to changes in its own price or output. This, in turn, determines the gains that each firm expects from undercutting a noncompetitive price, and the expected cost of being punished if such deviation is detected. Even duopolists do not necessarily react to each other's actions in ways that maximize joint profits: a duopoly is not the same as a monopoly.

The decision rules that comprise a firm's competitive strategy are difficult to infer from its observed behavior. Nonetheless, economists have identified a number of significant factors, in addition to the number of its rivals, that influence the strategies each firm pursues, and thus help to determine how close to the competitive outcome the industry's performance will be.¹⁴ These are factors that make collusive practices more or less difficult to establish, and affect the ease with which deviations from a collusive outcome can be detected and punished. Several of these factors are likely to influence the performance of the cellular service industry, albeit to varying degrees.

One of the most striking features of the mobile communication industry is the rapid pace of technological innovation and diffusion. Transmission technology has evolved from analog to digital, and cellular telephones have become truly portable, shrinking to pocket size. The rate of technological change and the

¹⁴G. J. Stigler, "A Theory of Oligopoly," Journal of Political Economy 74 (1964), pp. 44-61.

resulting speed with which the customer base is growing are two influences that economists consider procompetitive.

The rapid technological change in the provision of cellular service imparts a high degree of variability to the services offered and the prices of those services. In these circumstances, a collusive agreement is difficult to maintain, because the price of each new service must be integrated into the existing price structure.¹⁵ As providers adopt new technologies, the introduction of new service packages offers opportunities to "cheat" on a noncompetitive agreement without provoking the "punishment" that might otherwise occur, because it is difficult for a rival to determine what the appropriate price of the new service should be. If new services are offered at more competitive prices, because it is easier to deviate from a collusive agreement when products are changing, or even if rivals only perceive that the new services are being offered at prices that are "too low" because they do not know what those prices should be, a collusive agreement may be difficult to establish and maintain.

The rapid rate of technological innovation not only hinders the smooth functioning of a collusive pricing agreement but, by leading to rapid market growth, also may weaken the incentive for firms to participate in such agreements. When markets are growing

¹⁵R.A. Posner, Antitrust Law: An Economic Perspective (Chicago, IL: The University of Chicago Press, 1976), pp. 59-60.

rapidly, demand tends to be more inelastic, so the gains from deviating from a collusive price are greater.¹⁶

The importance of technological innovation in the provision of cellular services may lead to low prices for a third reason. Economic models predict there may be gains to pricing aggressively in industries characterized by significant learning economies. By keeping its prices low, a firm can increase production and achieve cost savings more rapidly as it moves down its learning curve.¹⁷ These models predict that economic performance will be better if, instead of many small firms, the industry consists of a few large, long-run profit-maximizing firms. The predictions of such models are supported by experiences in the semiconductor and related electronics industries.¹⁸

The history of the players' competitive behavior shapes their future behavior as well.¹⁹ Early in the history of cellular services, when the wireline carriers already were established and the nonwireline carriers were just beginning to serve customers, the new providers had an especially strong incentive to initiate price cuts. While they would realize lower revenue from their

¹⁶J.J. Rotemberg and G. Saloner, "A Supergame-Theoretic Model of Price Wars During Booms," American Economic Review 76 (1986), pp. 390-407.

¹⁷A.M. Spence, "The Learning Curve and Competition," The Bell Journal of Economics 12 (1981), pp. 49-70.

¹⁸F.M. Scherer and D. Ross, Industrial Market Structure and Economic Performance, Third Edition, (Boston, MA: Houghton Mifflin Co., 1990), pp. 373-374.

¹⁹Posner, op. cit., p. 61.

small bases of existing customers, this would be more than offset by revenues from the new customers they were able to attract.²⁰ The newer providers of long-distance telephone service faced similar incentives to price competitively against AT&T. Competition in the provision of long-distance service is considered by many to have increased significantly when start-up firms began offering service alternatives to AT&T, despite the fact that the structure of the industry is still quite concentrated.

Nor does it appear that the cellular service industry has established stable market-sharing arrangements as the nonwireline carriers' shares have grown to a substantial size. An example of shifting market shares is seen in Detroit. In that market in 1987, PacTel and Ameritech had 51.2 and 48.8 percent of the subscriber base, respectively. An industry analyst estimated that at year end in 1991, Pactel's share had fallen to 40.5 percent, and Ameritech's had risen to 59.5 percent.²¹

A final characteristic of cellular service markets that weakens industry cohesion, and thus the ability of firms to raise prices, is the heterogeneity of product offerings. Although the quality of airtime may not vary significantly across providers, an array of service packages typically is offered, none of which may

²⁰The Department of Justice and Federal Trade Commission Merger Guidelines of April 2, 1992 (p. 40) state that incentives to cheat on collusive agreements are greater the larger the proportional increase in sales from cheating and the smaller the base of sales prior to cheating.

²¹From Press Release, "Shostack Releases Cellular Market Quarterly Review - Shows Cellular Sales and Subscriber Counts for Each Major Market," Silver Spring, Maryland, May 25, 1992, p. 3.

be directly comparable between competing providers.²² The lack of an obvious basis for comparing service prices increases the cost of monitoring and punishing deviations from any collusive agreement in the short term.²³ With the introduction of Personal Communications Services (PCS), product heterogeneity will increase, and the cost of monitoring a collusive agreement will increase because price changes that reflect differences in service quality will be difficult to distinguish from price changes that undercut a tacit agreement.

The feature of the cellular industry that is most likely to raise competitive concerns among economists is the existence of a government-mandated barrier to further entry. The threat of entry in response to a profit opportunity should incumbents set artificially high prices often may have a dampening effect on the prices that are observed.²⁴ Ease of entry is a powerful competitive force²⁵ that cellular providers have not had to confront. However, with the advent of PCS, together with the introduction of a number of new service providers, cellular operators may be subject to additional competitive discipline.

²²The quality of airtime will vary from time to time, however, if cellular providers fail to anticipate the growth in subscribers, leading to increased traffic congestion.

²³K.W. Clarkson, and R.L. Miller, Industrial Organization: Theory, Evidence, and Public Policy (New York, NY: McGraw-Hill Book Company, 1982), pp. 335-336.

²⁴F. Modigliani, "New Developments on the Oligopoly Front," Journal of Political Economy 66 (1958), pp. 215-232.

²⁵Posner, op. cit., p. 49.

The nature of transactions in cellular services tends to favor the stability of an industry agreement not to compete, although industry practices indicate that a "repeat-purchase" aspect of the cellular subscriber may dominate. In effect, cellular providers compete for a particular customer each month, since the cost of switching to the alternate supplier is minimal.²⁶ Frequent and small transactions diminish the gains from deviating from a collusive agreement and provide ample opportunity for retaliation against suppliers that do so.²⁷ However, the incentives offered consumers for initial subscriptions and the commissions paid to agents, which are determined by the expected lifetime of a subscription, represent an investment on the part of cellular providers. These investments signify that cellular providers expect an ongoing relationship with most customers.²⁸ To the extent subscribers represent a long-term stream of future monthly revenues, cellular service providers have an incentive to compete aggressively for new customers.²⁹

The role of capacity in cellular services also has an ambiguous impact on the likelihood of sustained collusive behavior.

²⁶The activation fee typically is waived when a subscriber switches to the other provider. The phone must be brought in for reprogramming, however.

²⁷Stigler, op. cit., pp. 47 and 51.

²⁸On average, 15 percent of a cellular carrier's subscribers switch to the other provider during the course of a year, an observation made by Thomas E. Wheeler, the President of the CTIA, in a speech on October 21, 1992, entitled "The Wireless Century," p. 4.

²⁹Stigler, op. cit., p. 51.

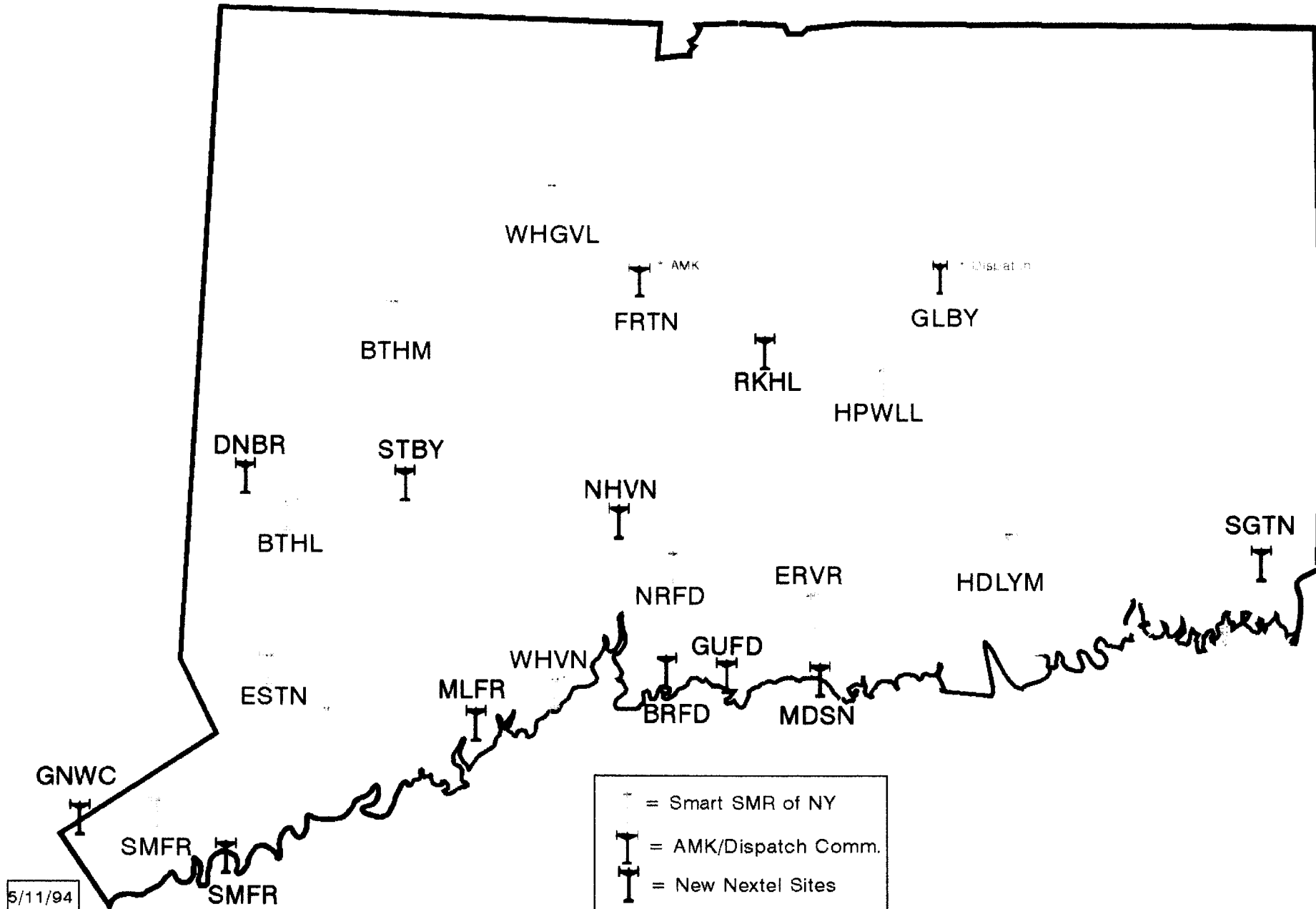
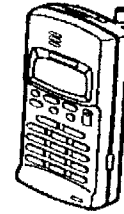
The capacity to serve subscribers increases in "lumpy" increments due to the nature of the technology. After the addition of new capacity, providers can serve new subscribers at low marginal cost. This scenario creates some pressure to undercut noncompetitive prices. On the other hand, economists recognize that idle capacity held by a price leader may serve to enforce collusive agreements.³⁰ The enforcement mechanism is the threat that the firm with significant excess capacity can flood the market with product to punish firms that undercut the noncompetitive price. However, economists tend to view excess capacity as a more important factor in industries experiencing cyclical or permanent downturns, a condition inapplicable to the past or foreseeable future of the cellular industry.

Economists recognize that an assessment of the degree of market competition must look beyond the number and size distribution of firms to factors that impede or foster collusive behavior. Clearly, there are characteristics of the cellular industry discouraging collusion and factors facilitating its practice. These characteristics by themselves are too complex to predict the competitive outcome. However, the observed performance in the cellular industry, most notably the rapid growth of the subscriber base and the steady decline in service prices, is consistent with competitive behavior.

³⁰Department of Justice and Federal Trade Commission Merger Guidelines, April 2, 1992, p. 40, footnote 19.

NEXTEL in CT

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5/11/94

CTIA



Building The Wireless Future™

Competition and the Wireless Industry

by

Robert F. Roche

Director for Research

Cellular Telecommunications Industry Association

Competition and the Wireless Industry

All branches of government have recognized that competition is not just an end in itself, but is valued for the ends it serves: increasing consumer welfare. Fundamental legal, regulatory and economic principles enshrine competition as a means of meeting consumer needs and preferences, promoting technological and service innovation, and ensuring affordable goods and services -- all things intended to benefit the consumer.

The wireless industry is dynamic and competitive. Wireless companies:

- Compete in a broad market, composed of many service providers.
- Constantly innovate, investing in technological and service developments.
- Strive to offer valuable goods and services to a broad and expanding population of users.

Market Structure and the Wireless Industry

The market structure of the wireless industry was originally designed to provide a modicum of competition, but the market itself is proving even more competitive than originally planned. Originally, the various segments of the wireless industry were created and defined separately -- but consumers and providers increasingly place them in the same market where many products and services are substitutable for each other.

Congress recognized this reality when it amended Section 332(c) of the Communications Act of 1934 to create the Commercial Mobile Radio Service classification, and established a policy of regulatory parity for these services.¹

The Converging Marketplace

The paradigm of a converging marketplace is now assumed in the plans of wireless service providers and industry analysts. Both Dial Page and CenCall, in presentations made to the FCC in the PCS proceeding, advanced visions of an integrated service market, composed of dispatch, paging/messaging, cellular/mobile telephony and mobile data users.²

¹See Omnibus Budget Reconciliation Act of 1993, Pub. L. No. 103-66, Sec. 6002(b)(2)(A), 107 Stat. 312, 393 (1993).

²See Presentation of Mr. Jeffrey R. Hultman, President and CEO of Dial Page, to Mr. Byron F. Marchant, and Mr. Ralph Haller, *et al.*, GEN Docket No. 90-314 (filed April 13, 1994). See also Presentation of Mr. Justin Jaschke, President of CenCall,

Economic Management Consultants International (EMCI) also concluded that: **"As technology, regulation, and market structure change, paging, SMR, cellular, mobile data, and mobile satellite services will compete more heavily against one another."**³ Attached figures drawn from these presentations illustrate how the convergence of these market segments will introduce yet more competition to the marketplace, even as technological innovation blurs the differences among mobile services.

An End to Entry Barriers

The wireless marketplace is expanding rapidly, and historic structural limits to entry -- spectrum scarcity, limited numbers of licenses, and limited technological capabilities -- have rapidly eroded.

First, the Federal Communications Commission granted waivers to SMR companies to convert their systems to wide-area, digital "enhanced SMR" (ESMR) systems.⁴ In quick order, companies began to raise capital and acquire SMR licenses to create systems with broad service areas. ***The SMR consolidation which has occurred has facilitated an accelerated system build-out, with ESMR services now available in California, and other markets building-out well before analysts predicted they would be completed.***⁵

SMR Origins

The Specialized Mobile Radio (SMR) industry was created in 1974, and eventually allocated 19 MHz of spectrum (in the 800 and 900 MHz bands) in most markets. As of 1991, there were some 7,000 SMR companies operating in the U.S., and while consolidation has reduced that number, the existing SMR companies are positioning themselves to compete in providing voice, data and other wireless messaging services. As of year-end 1993, there were 1.5 million SMR customers -- a number expected to increase to 5.2 million customers by year-end 1998.

Sources: Fertig, *Specialized Mobile Radio* (FCC, 1991), and EMCI.

to Ms. Karen Brinkmann, *et al.*, GEN Docket No. 90-314 (filed February 8, 1994).

³See EMCI, "The Changing Wireless Marketplace," *Cellular Brief*, December 17, 1992, at p.3.

⁴See *e.g.*, *Fleet Call, Inc.*, 6 FCC Rcd. 1533, *recon. dismissed*, 6 FCC Rcd. 6989 (1991). See also *American Mobile Data Communications, Inc.*, 4 FCC Rcd. 3802 (1989); Letter from Richard Shibben, Chief, Land Mobile and Microwave Division, Private Radio Bureau, to George Hertz, President, Advanced MobileComm of New England, Inc. (April 13, 1992); *Mobile Radio New England Request for Rule Waiver*, 8 FCC Rcd. 349 (1993).

⁵See Lynda Runyon *et al.*, Merrill Lynch Capital Markets *CenCall Communications Company Report*, January 19, 1994, at p.3.